

REMARKS

Reconsideration of this application is respectfully requested. Applicant believes that consideration of this amendment is proper because they have attempted to comply with every requirement expressly set forth in the previous Office Action dated December 16, 2009 (Paper No. 20091211) and believe the application is now in condition for allowance.

Claims 1 – 9 and 15 – 17 stand rejected as being unpatentable under 35 U.S.C. § 103(a) over Kahara et al. (U.S. Patent No. 5,753,871) in view of Baig (U.S. Patent Application Publication No. 2002/0139611) and Forry (U.S. Patent No. 4,585,685). The Applicant respectfully traverse this rejection as no *prima facie* case of obviousness has been established. There is no motivation for an artisan to combine the references as suggested. Even if the references are combined as the examiner suggests, it would not result in Applicant's product.

The Examiner notes that Baig reveals the use of coarse particles on a tile, then applies Applicant's definition of "coarse" to the particles of Baig, deeming that Baig discloses particles with a mean diameter of 2,500 microns which read on Applicant's claims. As of the filing date of this application, the information contained herein was not publically available as a patent or as a document of any type. Applicant respectfully contends that the definition of "coarse" in the present application does not constitute part of the prior art and cannot be combined with Baig to form the basis for a rejection.

Further, Baig takes a base mat, then applies a mineral wool-rich overlay. Coarse calcium carbonate was spray-coated onto the overlay, then painted with an acoustical paint. There is no definition or suggestion of what constitutes “coarse” as it applies to calcium carbonate. There is no disclosure of what “coarse” means for an aggregate used in a spray coating. Thus, Baig fails to suggest the use of particles having a mean particle diameter of at least 1,000 microns.

As argued previously, and as admitted by the Examiner, neither the Kahara nor Baig references disclose aggregate particles that are pressed into the front surface of the acoustical tile.

Applicant’s amended claims state that the core is made from a wet composition. This differentiates it from Forry, which is a dry-formed process. The Examiner states that process limitations do not confer patentability to the product absent evidence that the product itself is different. Forry teaches the difference between a dry-formed web and a core made from wet processes in Col. 1, lines 19-24:

materials. The resulting products, however, have suffered from a variety of drawbacks. Specifically, because they are wet-laid, the fibers are closely packed so that sound cannot readily penetrate the board; thus, a wet-laid board must be perforated or fissured in order to obtain acceptable acoustical performance. In addition,

Further, if the fibers are so tightly packed that sound cannot enter the board, there would be no reason to believe the addition of the aggregate would improve the acoustical properties. Forry describes the structure of his own board in Col. 5, lines 24-28:

material will be firmly adhered to the web. Nevertheless, because the aggregate material will have pore spaces between the particles through which air can pass, and because the web will retain openings between the fibers, the resulting composite material will remain acoustically porous.

Further, Forry uses an aggregate that is a mixture of particles and binder.

In Col. 5, lines 43-46, Forry teaches:

trated by FIGS. 4 and 5. If the aggregate does not contain an additional binder, the particles which are not embedded in consolidated web 15 will not be held in place and they will fall off. The resulting product will

This passage teaches away from using aggregate particles alone in the aggregate. The product of Forry requires binder to hold the aggregate in the web because of the dry-forming process. When pressed into the wet starch composition of Applicant's claims, the aggregate is held in the starch binder and no additional binder need be added with the aggregate.

Thus, the structure of dry-formed and wet-laid products are different, as taught by the cited prior art. Therefore, the process limitations should be considered to produce a materially different product and should be considered germane to the issue of patentability. None of the cited references suggests a product having aggregate particles pressed into the wet surface. Therefore, all features of the present claims are not taught or suggested by the prior art and no *prima facie* case of obviousness has been established.

The above-referenced teachings of Forry also speak to the motivation to combine the teachings of Forry with those of Baig or Kahara. Forry states unequivocally that the product of a wet-laid process would not be suitable for his process. The

composite of Forry is made of a non-woven web whereby fibrous material and an organic binder are intermixed, then blown or spun to form a web or batt such as a fiberglass batt. The composite is covered with the aggregate particles. Pressure is then applied to the combined web and particles, pushing the aggregate down into the web between the fibers. As stated by Forry:

In order for the aggregate material to be embedded in the fibrous material, the web must be resilient enough that it can deflect so as to permit the aggregate to be forced into the web surface and at least partially surrounded by the web constituents. Thus, when the consolidation and curing process is complete, the aggregate material will be firmly adhered to the web. Nevertheless, because the aggregate material will have pore spaces between the particles through which air can pass, and because the web will retain openings between the fibers, the resulting composite material will remain acoustically porous.

Column 5, lines 17-28. The aggregates of Forry are held in place by becoming entangled in the fibers of the web, while air freely passes between the fibers. The prior art thus teaches that the only reasons why acoustical porosity is maintained is because air flow is preserved between the aggregate particles and between the web fibers. One skilled in the art would not be motivated to use the aggregate material in the products of Kahara or Baig since the web would not have openings through which air could pass and because there is no resilient web to deflect and accept the aggregate particles.

Applicant's amended claims clarify that the aggregate was deposited on the surface of the wet starch gel and mineral wool composition prior to drying. Due to the presence of the wet gel, there will not necessarily be pore spaces between all of the

particles as described by Forry. As a result of the diverging methods of making the product, a product having a different structure is produced.

The differences in the product were clearly recognized by Forry. Forry specifically states that the deposition of aggregate on tiles made using a wet-laid process is problematic and produces undesirable properties as noted in that reference as follows:

Aggregate facing materials have not been successfully used to produce acoustical materials because the facing materials cannot be adequately adhered to the board when it is in the wet state. This may occur because the consolidation which causes the aggregate to adhere to the wet board results in a densification of the board so that it is no longer acoustical, and/or because the faced boards cannot be fissured to render them acoustically porous without substantially interfering with the appearance of the board. When aggregate is

Column 1, lines 42-51.

In this passage, Forry teaches that application of aggregates to a board in the wet state densifies the board, prevents fissuring and results in aggregate not adhering to the board. Thus Forry revealed that these differences in structure resulted in limited acoustical properties of a wet-laid product.

Applicant has shown that no prima facie case of obviousness has been established. The prior art fails to disclose pressing of aggregate particles onto a front surface of an acoustical tile to make the same structure as taught by Applicant. None of the prior art suggests utilizing a coarse particle having an average particle diameter of at least 1,000 microns. There is no motivation to press the aggregate of Forry into the wet-laid tile of Baig or Kahara since Forry teaches that doing so does not produce an

acoustical tile. Applicant respectfully requests that this rejection be withdrawn and the subject claims be allowed to issue.

Claims 1 through 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cotts (U.S. Patent No. 3,184,372) in view of Baig and Forry. As admitted by the Examiner, Cotts fails to disclose a front surface of the ceiling tile coated with aggregate particles. Applicant respectfully traverses this rejection.

Applicant respectfully submits that the arguments asserted above with regard to Baig and Forry are reasserted here. The product formed by the method of Forry would have a different structure than that claimed by Applicant. There is no disclosure of an aggregate having a mean particle diameter of at least 1,000 microns.

Forry is relied upon to suggest the addition of particulate onto the surface of a core material. Arguments with respect to Forry asserted above are reasserted here. Forry teaches that a different structure is achieved using his dry-formed web and teaches away from using a wet-laid base mat.

Further, there is no motivation to combine Forry with Cotts and Baig for reasons discussed above. Therefore, no *prima facie* case of obviousness has been established. In light of the foregoing, Applicant respectfully submits that Cotts, Baig and Forry alone or in combination do not teach, disclose or suggest the invention claimed by the Applicant. Reconsideration and allowance of the claims is respectfully requested.

In re Application of Mayers et al.
Application Ser. No. 10/789,000
Response to Office Action dated September 1, 2010
Amendment dated December 1, 2010

By the above arguments and amendments, Applicants believe that they have complied with all requirements expressly set forth in the pending Office Action. Issuance of a Notice of Allowance on the remaining allowed claims is respectfully requested. Should the Examiner discover there are remaining issues which may be resolved by a telephone interview, she is invited to contact Applicants' undersigned attorney at the telephone number listed below.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified application for the period required to make the attached response timely. The Commissioner is hereby authorized to charge fees which may be required to this application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,
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